Briefing Paper
For
Regional Administrator's Meeting with BP and Atlantic Richfield Company

Region 8 is actively involved with BP and Atlantic Richfield at the following Superfund Sites:

ACM Smelter and Refinery Site, Cascade County, Montana

The 427 acre ACM Smelter and Refinery Site is located adjacent to the community of Black Eagle along the Missouri River in Cascade County, Montana. The city of Great Falls is located across the river from the site. Eighty years of refinery operations contaminated soil, groundwater and surface water resources around the site. The refinery's smoke stacks ejected lead, arsenic and other metals in wastes from the refinery processes. Deposition from the stacks likely contaminated nearby residential yards. Atlantic Richfield's predecessor, Anaconda Copper Mining Company, acquired the property in 1910 and continued zinc smelting and refining activities until the early 1970s. The property again changed hands in 1977, when Atlantic Richfield took title to the site. Refining operations continued until the plant closed in 1980. EPA placed the ACM Smelter and Refinery on the Superfund program's National Priority List in March 2011. Atlantic Richfield entered into an Administrative Order on Consent with the EPA to conduct the remedial investigation/feasibility study for . The EPA issued a Unilateral Administrative Order for RI/FS work along the Railroad Corridor portion of the Site. The Record of Decision (ROD) for OU1 is expected to be finalized sometime in 2017.

Anaconda Co. Smelter Site, Deer Lodge Valley, Montana

The 300-square-mile Anaconda Co. Smelter Site is located at the southern end of the Deer Lodge Valley in Montana, at and near the location of the former Anaconda Copper Mining Company (ACM) ore processing facilities. ACM facility operations included removal of copper from ore mined in Butte from about 1884 through 1980. Milling and smelting produced wastes with high concentrations of arsenic, as well as copper, cadmium, lead and zinc. These wastes contaminated soil, groundwater and surface water with hazardous chemicals. Cleanup is complete at several areas within the site. At these areas, operation and maintenance activities are ongoing. Cleanup is underway at the remaining areas.

Atlantic Richfield is the successor to ACM. Since the site was listed on the NPL in 1983, remedial action workplans have been developed under an administrative consent order with Atlantic Richfield. EPA has then issued unilateral administrative orders to Atlantic Richfield to implement the workplans. To date, EPA has issued approximately 27 unilateral orders to Atlantic Richfield for this site.

Negotiations are currently ongoing among EPA, MDEQ, Anaconda/Deer Lodge County, and Atlantic Richfield for a comprehensive, final settlement to be embodied in a consent decree. The settlement will address institutional controls to be implemented by Anaconda/Deer Lodge County and EPA's past and future costs.

One pressing issue involves the Old Works Golf Course, which provides a cap over waste left in place and was donated to the county by Atlantic Richfield. The hope was that revenue from the golf course would be sufficient to cover the costs of ongoing maintenance of the cap. It is

presently losing money. Atlantic Richfield has tentatively agreed to support the golf course provided agreement can be reached on other outstanding issues.

Clark Fork Basin Superfund Sites, Montana

The Clark Fork Basin Superfund Sites are, collectively, the largest Superfund site in the country. The cleanup of these highly contaminated and populated sites is also one of the most expensive and challenging. The cleanup impacts several towns and cities, an entire river system, and large valleys of impacted land. The sites include the Anaconda Smelter Site described above, and the Milltown Reservoir, Butte Mine Flooding,
Silver Bow Creek, Butte Priority Soils, Clark Fork River, Streamside Tailings, Warm Springs Ponds and Montana Pole and Treating sites.

Of these sites, the only site that is likely to be raised by ARCO/BP representatives is the Butte Priority Soils operable unit consent decree negotiations. You have separately been briefed by email on the current status of those discussions (see Elsen email dated 2/11/2016).

Overall, sSubstantial cleanup has occurred in all areas of the Basin sites. Around $ 800 to $ 900 million
(this is an informal estimate and not for public issuance) in EPA or liable party related response costs have been expended, primarily by the Atlantic Richfield. The State of Montana has recovered around $ 350 million in natural resource damage monies in addition to these costs. Approximately $ 200 million in EPA and ARCO related response costs, including perpetual operation and maintenance, remains.

Columbia Falls Aluminum Company Superfund Site, Flathead County, Montana

The site is a former aluminum reduction plant located in Flathead County, Montana. The site encompasses approximately 3,196 acres of industrial property which include landfills, percolation ponds, leachate ponds, sludge ponds, sewage treatment ponds and cathode soaking pits. Cyanide and fluoride compounds have been found in ground water and surface water in levels that pose a threat to public health and the environment.

The plant opened in 1955. The Anaconda Company, the predecessor to Atlantic Richfield, originally owned and operated the plant. In 1977, Atlantic Richfield continued to operate the plant until 1985 when it sold the plant to the Columbia Falls Aluminum Company (CFAC). In 1999, Glencore, a privately owned, Swiss-based commodity trading company, acquired CFAC. In 2009, CFAC closed the plant.

With the support of the local community and the Montana Governor, EPA proposed adding the Columbia Falls Aluminum Site to the National Priorities List on March 26, 2015. EPA received 77 public comments in response and believes the site still qualifies for listing. On November 30, 2015, EPA entered into an administrative order on consent with CFAC, whereby the company has agreed to perform the remedial investigation/feasibility study for the site subject to EPA oversight and has provided financial assurance in the form of a $4M letter of credit. Atlantic Richfield refused to participate in the negotiations.

Some community members are now questioning the need to finalize the site on the NPL and are advocating that EPA address the site using the Superfund Alternative Approach. CFAC and its parent corporation, Glencore, are also requesting that EPA take this approach.

EPA is evaluating whether the Superfund Alternative Approach is a viable alternative given the financial condition of CFAC and Glencore. EPA will not finalize the listing before the fall of 2016 to explore this option and engage in additional community outreach.

The International Smelting and Refining (IS&R) Site, Tooele, Utah

The International Smelting and Refining Site is located about two miles northeast of Tooele, Utah, on the west flank of the Oquirrh Mountains near the mouth of Pine Canyon. The site consists of the Pine Canyon Conservation Area, the Pine Canyon/Lincoln Township Area and the Tooele Valley Railroad. From 1910 until 1972, copper, lead and zinc smelting and refining activities caused contamination at the smelter property and adjacent lands. Site investigations found heavy metal contamination in soils, tailings and slag. Atlantic Richfield, a PRP for the site, implemented cleanup pursuant to a series of removal actions and unilateral administrative orders. Following cleanup, EPA took the site off the Superfund program's National Priorities List (NPL) in October 2011. EPA is currently in negotiations with Atlantic Richfield whereby the company will agree to perform long term operation and maintenance activities pursuant to a judicial consent decree.

Rico Argentine Mine Site, Dolores County, Colorado

The Rico Argentine Mine is located north of the town of Rico in Dolores County, Colorado. The site includes the St. Louis Tunnel, settling ponds, and mine workings. A portion of many of the ponds sit within U.S. Forest Service land boundaries. The remaining land covers several privately-held mining claims with different owners. Acidic metals contaminated mine water drains from multiple underground mine workings into the St. Louis Tunnel, which discharges to the Dolores River. Beginning in the 1860's, extensive mining for silver, lead, zinc, gold, and copper took place in the Rico mining district. Mining activities continued through the 1970's, with Atlantic Richfield and its predecessor owning and operating the Site from 1980-1988.

In 2000, an emergency removal was performed to prevent a breach where one of the ponds was overtopping. EPA's response consisted of raising and reinforcing the riverside embankment of the pond, adding an additional culvert between the pond and downgradient ponds, and installing overflow riprap as a backup drain path. Additional assessment was performed in 2010 by EPA's response program. On March 17, 2011, EPA issued Atlantic Richfield a Unilateral Administrative Order to implement an action memo that required dredging the settling ponds and treating the discharge from the St. Louis Tunnel. Work under the UAO continues. Atlantic Richfield dredged ponds and constructed a repository that will house precipitation solids from past treatment activities. Atlantic Richfield also reconstructed a nearby adit and evaluated ways to control the water flowing into the St. Louis Tunnel. Because of various factors, limited mine water source controls are anticipated. Discharging water will likely be treated via a semi-passive bio-chemical water treatment system. Both a small-scale pilot study and larger demonstration cell have proven effective at removing contaminants of concern from the discharging water. At the conclusion of the removal action, Atlantic Richfield will obtain a Colorado water discharge permit, which will serve as an effective post-removal site control.